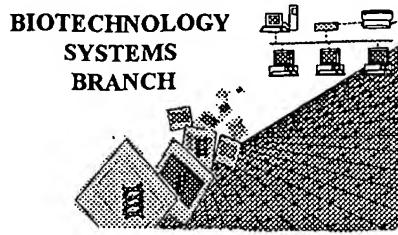


RECEIVED

JAN 30 2003

TECH CENTER 1600/2900



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/017,3720
Source: 1600
Date Processed by STIC: 1/24/2003

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

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FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
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Revised 01/29/2002



1600

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/017,372D

DATE: 01/24/2003
TIME: 13:07:59

Input Set : A:\61302.txt
Output Set: N:\CRF4\01242003\J017372D.raw

3 <110> APPLICANT: Wolfraim, Lawrence A
4 Letterio, John J
6 <120> TITLE OF INVENTION: FUNCTIONALIZED TGF-BETA FUSION PROTEINS
8 <130> FILE REFERENCE: 4239-61302
10 <140> CURRENT APPLICATION NUMBER: US 10/017,372D
11 <141> CURRENT FILING DATE: 2001-10-19
13 <150> PRIOR APPLICATION NUMBER: US 60/242,292
14 <151> PRIOR FILING DATE: 2000-10-20
16 <160> NUMBER OF SEQ ID NOS: 39
18 <170> SOFTWARE: PatentIn version 3.1
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 28
22 <212> TYPE: DNA
23 <213> ORGANISM: Artificial Sequence
25 <220> FEATURE:
26 <223> OTHER INFORMATION: Primer
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35 <213> ORGANISM: Artificial Sequence
37 <220> FEATURE:
38 <223> OTHER INFORMATION: Primer
40 <400> SEQUENCE: 2
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45 <211> LENGTH: 48
46 <212> TYPE: DNA
47 <213> ORGANISM: Artificial Sequence
49 <220> FEATURE:
50 <223> OTHER INFORMATION: Primer
52 <400> SEQUENCE: 3
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56 <210> SEQ ID NO: 4
57 <211> LENGTH: 45
58 <212> TYPE: DNA
59 <213> ORGANISM: Artificial Sequence
61 <220> FEATURE:
62 <223> OTHER INFORMATION: Primer
64 <400> SEQUENCE: 4
65 cttgtcgctcg tcatccttgt agtctcgccg gtgccgggag ctgtg 45
68 <210> SEQ ID NO: 5

Does Not Comply
Corrected Diskette Needed

P.4

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/10/017,372D

DATE: 01/24/2003
 TIME: 13:07:59

Input Set : A:\61302.txt
 Output Set: N:\CRF4\01242003\J017372D.raw

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 71 <213> ORGANISM: Artificial Sequence
 73 <220> FEATURE:
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 76 <400> SEQUENCE: 5
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 83 <213> ORGANISM: Artificial Sequence
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 88 <400> SEQUENCE: 6
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 92 <210> SEQ ID NO: 7
 93 <211> LENGTH: 8
 94 <212> TYPE: PRT
 95 <213> ORGANISM: Artificial Sequence
 97 <220> FEATURE:
 98 <223> OTHER INFORMATION: Synthetic oligopeptide
 100 <400> SEQUENCE: 7
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 103 1 5
 106 <210> SEQ ID NO: 8
 107 <211> LENGTH: 1197
 108 <212> TYPE: DNA
 109 <213> ORGANISM: Artificial Sequence
 111 <220> FEATURE:
 112 <223> OTHER INFORMATION: Fusion oligonucleotide
 114 <220> FEATURE:
 115 <221> NAME/KEY: CDS
 116 <222> LOCATION: (1)..(1197)
 117 <223> OTHER INFORMATION:
 120 <220> FEATURE:
 121 <221> NAME/KEY: misc_feature
 122 <222> LOCATION: (278)..(279)
 123 <223> OTHER INFORMATION: Maturation cleavage site
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 128 Met Ala Pro Ser Gly Leu Arg Leu Leu Pro Leu Leu Leu Pro Leu Leu
 129 1 5 10 15
 131 tgg ctg cta gtg ctg acg cct ggc cgg ccg gcc gca ctg tcc acc 96
 132 Trp Leu Leu Val Leu Thr Pro Gly Arg Pro Ala Ala Gly Leu Ser Thr
 133 20 25 30
 135 tgc aag acc atc gac atg gag ctg gtg aag cgg aag cgc atc gag gcc 144
 136 Cys Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg Ile Glu Ala
 137 35 40 45
 139 att cgc ggc cag att ctg tcc aag ctt cgg ctt gcc agc ccc ccc agc 192

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/017,372D

DATE: 01/24/2003
TIME: 13:07:59

Input Set : A:\61302.txt
Output Set: N:\CRF4\01242003\J017372D.raw

140	Ile	Arg	Gly	Gln	Ile	Leu	Ser	Lys	Leu	Arg	Leu	Ala	Ser	Pro	Pro	Ser	
141	50					55				60							
143	cag	ggg	gac	gtg	ccg	ccc	ggc	ccg	ctg	cct	gag	gca	gta	ctg	gct	ctt	240
144	Gln	Gly	Asp	Val	Pro	Pro	Gly	Pro	Leu	Pro	Glu	Ala	Val	Leu	Ala	Leu	
145	65					70				75						80	
147	tac	aac	agt	acc	cgc	gac	cg	gt	gcc	ggg	gaa	agt	gtc	gaa	ccg	gag	288
148	Tyr	Asn	Ser	Thr	Arg	Asp	Arg	Val	Ala	Gly	Glu	Ser	Val	Glu	Pro	Glu	
149						85				90						95	
151	ccc	gag	cca	gag	g	g	g	ac	ta	cc	aa	gag	gt	cc	gt	ct	336
152	Pro	Glu	Pro	Glu	Ala	Asp	Tyr	Tyr	Ala	Lys	Glu	Val	Thr	Arg	Val	Leu	
153						100				105						110	
155	atg	gt	gaa	agc	ggc	aa	atc	at	gat	aaa	ttc	aa	ggc	cc	cc	cc	384
156	Met	Val	Glu	Ser	Gly	Asn	Gln	Ile	Tyr	Asp	Lys	Phe	Lys	Gly	Thr	Pro	
157						115				120						125	
159	cac	agc	tta	ta	atg	ctg	ttc	aa	ac	tg	gag	ct	cc	gg	gg	gt	432
160	His	Ser	Leu	Tyr	Met	Leu	Phe	Asn	Thr	Ser	Glu	Leu	Arg	Glu	Ala	Val	
161						130				135						140	
163	ccg	gaa	cct	gta	ttg	ctc	tct	ccg	gca	gag	ctg	cc	ctg	ctg	agg	ct	480
164	Pro	Glu	Pro	Va	Leu	Leu	Ser	Arg	Ala	Glu	Leu	Arg	Leu	Arg	Leu		
165						145				150						160	
167	aag	tta	aaa	gt	gag	ca	g	ac	gt	gag	ct	ta	ca	aa	ta	ac	528
168	Lys	Leu	Lys	Val	Glu	Gln	His	Val	Glu	Leu	Tyr	Gln	Lys	Tyr	Ser	Asn	
169						165				170						175	
171	gat	tcc	tgg	cg	tc	ac	agc	aa	cg	ctg	ctg	gg	cc	cc	ag	tg	576
172	Asp	Ser	Trp	Arg	Tyr	Leu	Ser	Asn	Arg	Leu	Leu	Ala	Pro	Ser	Asp	Ser	
173						180				185						190	
175	ccg	gag	tgg	ctg	tcc	ttt	gat	gt	cc	gg	gtt	gt	cc	tg	tg	ct	624
176	Pro	Glu	Trp	Leu	Ser	Phe	Asp	Va	Thr	Gly	Val	Val	Arg	Gln	Trp	Leu	
177						195				200						205	
179	acc	cg	aga	gag	g	ct	ata	gag	gg	ttt	cg	ct	ag	tg	cc	tcc	672
180	Thr	Arg	Arg	Glu	Ala	Ile	Glu	Gly	Phe	Arg	Leu	Ser	Ala	His	Ser	Ser	
181						210				215						220	
183	tct	gac	agc	aaa	gat	aa	ca	ctc	ca	gt	gaa	tt	aa	gg	tt	aa	720
184	Ser	Asp	Ser	Lys	Asp	Asn	Thr	Leu	His	Val	Glu	Ile	Asn	Gly	Phe	Asn	
185						225				230						240	
187	tct	gg	cg	cg	gg	gt	gac	ct	gg	cc	acc	tt	cc	ag	cc	cc	768
188	Ser	Gly	Arg	Arg	Gly	Asp	Leu	Ala	Thr	Ile	His	Gly	Met	Asn	Arg	Pro	
189						245				250						255	
191	tcc	ct	ct	ct	at	g	cc	ac	cc	ct	ga	gg	cc	ca	ct	ca	816
192	Phe	Leu	Leu	Leu	Met	Ala	Thr	Pro	Leu	Glu	Arg	Ala	Gln	His	Leu	His	
193						260				265						270	
195	agc	tcc	cg	ca	cg	ca	gac	ta	aa	gat	gac	ga	aa	gg	cc	ct	864
196	Ser	Ser	Arg	His	Arg	Arg	Asp	Tyr	Lys	Asp	Asp	Asp	Asp	Lys	Ala	Leu	
197						275				280						285	
199	gat	acc	aa	ta	tgc	ttc	agc	tg	gag	aa	ac	tgc	tgc	gt	gg		912
200	Asp	Thr	Asn	Tyr	Cys	Phe	Ser	Ser	Thr	Glu	Lys	Asn	Cys	Cys	Val	Arg	
201						290				295						300	
203	cag	ctc	ta	tc	ttc	cg	aa	gac	ct	gg	tgg	aa	tgg	tt	ca		960
204	Gln	Leu	Tyr	Ile	Asp	Phe	Arg	Lys	Asp	Leu	Gly	Trp	Lys	Trp	Ile	His	

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/017,372D

DATE: 01/24/2003
TIME: 13:07:59

Input Set : A:\61302.txt
Output Set: N:\CRF4\01242003\J017372D.raw

205	305	310	315	320	
207	gaa ccc aag ggc tac cat gcc aat ttc tgc ctg ggg ccc tgt ccc tac				1008
208	Glu Pro Lys Gly Tyr His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr				
209	325		330	335	
211	atc tgg agc cta gac act cag tac agc aag gtc ctg gct ctg tac aac				1056
212	Ile Trp Ser Leu Asp Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn				
213	340	345	350		
215	cag cac aac ccg ggc gcg tcg gcg ccg tgc tgc gtg ccg cag gcg				1104
216	Gln His Asn Pro Gly Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala				
217	355	360	365		
219	ctg gag cca ctg ccc atc gtg tac tac gtg ggc cgc aag ccc aag gtg				1152
220	Leu Glu Pro Leu Pro Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val				
221	370	375	380		
223	gag cag ctg tcc aac atg atc gtg cgt tcc tgc aag tgc aac tga				1197
224	Glu Gln Leu Ser Asn Met Ile Val Arg Ser Cys Lys Cys Ser				
225	385	390	395		
228	<210> SEQ ID NO: 9				
229	<211> LENGTH: 398				
230	<212> TYPE: PRT				
231	<213> ORGANISM: Artificial Sequence				
233	<220> FEATURE:				
234	<223> OTHER INFORMATION: Fusion oligonucleotide				
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237	<221> NAME/KEY: misc_feature				
238	<222> LOCATION: (278)..(279)				
239	<223> OTHER INFORMATION: Maturation cleavage site				
241	<400> SEQUENCE: 9				
243	Met Ala Pro Ser Gly Leu Arg Leu Leu Pro Leu Leu Leu Pro Leu Leu				
244	1	5	10	15	
247	Trp Leu Leu Val Leu Thr Pro Gly Arg Pro Ala Ala Gly Leu Ser Thr				
248	20	25	30		
251	Cys Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg Ile Glu Ala				
252	35	40	45		
255	Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser Pro Pro Ser				
256	50	55	60		
259	Gln Gly Asp Val Pro Pro Gly Pro Leu Pro Glu Ala Val Leu Ala Leu				
260	65	70	75	80	
263	Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Val Glu Pro Glu				
264	85	90	95		
267	Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr Arg Val Leu				
268	100	105	110		
271	Met Val Glu Ser Gly Asn Gln Ile Tyr Asp Lys Phe Lys Gly Thr Pro				
272	115	120	125		
275	His Ser Leu Tyr Met Leu Phe Asn Thr Ser Glu Leu Arg Glu Ala Val				
276	130	135	140		
279	Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu Leu Arg Leu				
280	145	150	155	160	
283	Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys Tyr Ser Asn				
284	165	170	175		

This is not an
oligonucleotide
sequence.

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/017,372D

DATE: 01/24/2003
TIME: 13:07:59

Input Set : A:\61302.txt
Output Set: N:\CRF4\01242003\J017372D.raw

287 Asp Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro Ser Asp Ser
288 180 185 190
291 Pro Glu Trp Leu Ser Phe Asp Val Thr Gly Val Val Arg Gln Trp Leu
292 195 200 205
295 Thr Arg Arg Glu Ala Ile Glu Gly Phe Arg Leu Ser Ala His Ser Ser
296 210 215 220
299 Ser Asp Ser Lys Asp Asn Thr Leu His Val Glu Ile Asn Gly Phe Asn
300 225 230 235 240
303 Ser Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met Asn Arg Pro
304 245 250 255
307 Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln His Leu His
308 260 265 270
311 Ser Ser Arg His Arg Arg Asp Tyr Lys Asp Asp Asp Asp Lys Ala Leu
312 275 280 285
315 Asp Thr Asn Tyr Cys Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg
316 290 295 300
319 Gln Leu Tyr Ile Asp Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His
320 305 310 315 320
323 Glu Pro Lys Gly Tyr His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr
324 325 330 335
327 Ile Trp Ser Leu Asp Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn
328 340 345 350
331 Gln His Asn Pro Gly Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala
332 355 360 365
335 Leu Glu Pro Leu Pro Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val
336 370 375 380
339 Glu Gln Leu Ser Asn Met Ile Val Arg Ser Cys Lys Cys Ser
340 385 390 395
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344 <211> LENGTH: 363
345 <212> TYPE: DNA
346 <213> ORGANISM: Artificial Sequence
348 <220> FEATURE:
349 <223> OTHER INFORMATION: Fusion oligonucleotide
351 <400> SEQUENCE: 10
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354 aagaactgct gcgtgcggca gctctacatt gacttccgga aggacctggg ctggaaagtgg 120
356 attcatgaac ccaagggcta ccatgccaat ttctgcctgg gcccctgtcc ctacatctgg 180
358 agcctagaca ctcagttacag caaggtcctg gctctgtaca accagcacaa cccgggcgcg 240
360 tcggcggcgc cgtgctgcgt gccgcaggcg ctggagccac tgcccatcgt gtactacgtg 300
362 ggccgcaagc ccaaggtgga gcagctgtcc aacatgatcg tgcgttcctg caagtgcagc 360
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368 <211> LENGTH: 120
369 <212> TYPE: PRT
370 <213> ORGANISM: Artificial Sequence
372 <220> FEATURE:
373 <223> OTHER INFORMATION: Fusion oligopeptide
375 <220> FEATURE:

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/017,372D

DATE: 01/24/2003
TIME: 13:08:00

Input Set : A:\61302.txt
Output Set: N:\CRF4\01242003\J017372D.raw

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STATISTICS SUMMARY
PATENT APPLICATION: US/10/017,372D

DATE: 01/24/2003
TIME: 13:08:00

Input Set : A:\61302.txt
Output Set: N:\CRF4\01242003\J017372D.raw

Application Serial Number: US/10/017,372D

Alpha or Numeric or Xml: Numeric

Application Class:

Application File Date: 10-19-2001

Art Unit: 1600

Software Application: PatentIN3.1

Total Number of Sequences: 39

Total Nucleotides: 17502

Total Amino Acids: 5182

Number of Errors: 0

Number of Warnings: 25

Number of Corrections: 0

MESSAGE SUMMARY

258 W: 25 (Mandatory Feature missing)